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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,979	12/12/2006	Yoichi Nemoto	Q95077	3586

23373 7590 02/28/2011

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
MCPHERSON, JOHN A	

ART UNIT	PAPER NUMBER
1721	

NOTIFICATION DATE	DELIVERY MODE
02/28/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	10/579,979	NEMOTO ET AL.	
	Examiner	Art Unit	
	John A. McPherson	1721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 8-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-3,5,6,8 and 9* is/are allowed.

6)☒ Claim(s) *10 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/11 has been entered.

Response to Amendment

2. The Amendment filed 2/17/11 successfully overcomes the rejections and objection set forth in paragraph 3-5 of the Office Action mailed 11/17/10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-295432 [reference 6 of the Information Disclosure Statement filed 2/24/10] (JP '432) in view of JP 2002-107534 [reference 1 of the Information Disclosure Statement filed 2/24/10] (JP '534).

JP ‘432 discloses a method for producing a color filter comprising the steps of applying a negative curable composition comprising an alkali-soluble resin having a specified molecular weight distribution, an organic solvent-soluble dye, a photoinitiator and a crosslinking agent on a substrate, exposing a 2-micrometer square pattern on the coating film, developing the exposed coating film, and performing a heat treatment for five minutes at 200. See the abstract; and paragraphs [0008], [0013], [0081] and [0102] of the computer-generated translation. Additionally, the alkali soluble resin may have a polymerization nature group in a side chain, for example an allyl group or a (meth)acrylic group, in order to raise bridge construction efficiency. See paragraph [0021] of the computer-generated translation. Furthermore, the alkali-soluble resin is preferably 10-90 mass % of the total solids. See paragraph [0030] of the computer-generated translation. However, JP ‘432 does not disclose irradiating the developed coating film with ultraviolet radiation while heating at a temperature of 20 °C to 50 °C.

JP ‘534 discloses a method for manufacturing a color imaging device wherein exposure to ultraviolet ray is performed between development and film hardening, so as to prevent collapse and widening of a color filter fine pattern shape. See the abstract; and paragraphs [0022] and [0029] of the computer-generated translation. While the exposure to ultraviolet ray of JP '534 is not performed while heating, the lower end of temperature range for “heating” of the present invention is 20 ^{0}C (i.e. room temperature), so it is the position of the Examiner that the exposure to ultraviolet ray of JP '534 meets the limitations of the presently claimed irradiating step. Furthermore, see Example 7 of the present invention, wherein post curing proceeds according to

condition 5, which utilizes irradiation with a plate temperature of "---", (i.e. without heating, corresponding to room temperature, which is about 20 °C).

It would have been obvious to one skilled in the requisite art to expose a fine color filter pattern to an ultraviolet ray between development and film hardening (i.e. post baking), as taught by JP '534, in the process of JP 432 because it is taught that exposure to an ultraviolet ray between development and film hardening prevents collapse and widening of a color filter fine pattern shape by the film hardening treatment.

Allowable Subject Matter

4. Claims 1-3, 5, 6, 8 and 9 are allowed.

Response to Arguments

5. Applicant's arguments filed 9/13/10 have been fully considered but they are not persuasive.

With respect to new claims 10 and 11, Applicant argues that in the case where the molecule of the alkali-soluble resin contained in the photo-curable composition contains a molecular chain having a polymerizable double bond, the post cure can be promoted effectively. However, providing a polymerization nature group, for example an alkyl group or a (meth)acrylic group, in a side chain of the alkali-soluble resin is disclosed in paragraph [0021] of JP '432, along with the expected benefit of raised bridge construction efficiency which is attributed thereto.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John A. McPherson/
Primary Examiner, Art Unit 1721

JAM
2/23/11